

Attachment 7 Sampling and Analytical Methods for the Test and Clean Program

Type of Location	Locations	Samples to be collected	Number of Locations
“Accessible” areas are defined as areas in which exposures of residents or the general public readily occur.	<p>i) Area or wall-to-wall carpeting. Locations include, in an order of most to least preferred location (on the basis of exposure considerations): 1) in the main entrance used for access and egress from the building; 2) carpet in the secondary, less heavily used entrance to the unit; 3) carpet in the center of the most frequently used play area for children under the age of six; and 4) carpet in an acknowledged or evident route of high traffic flow (i.e., stairs, hallway, etc.);</p> <p>ii) Kitchen tiled floor, hardwood floors, or hard floors of other surfaces types (laminated, e.g.);</p> <p>iii) Draperies/curtains in the living room, which is the primary location if unit is a residence, and then draperies/curtains in other rooms of the unit;</p> <p>iv) The wall at hand level for a resident child or adult where there are no children;</p> <p>v) The wall adjacent to the head of the bed in a child’s bedroom, or in the adult bedroom where no children occupy the unit;</p> <p>vi) Kitchen counter tops;</p> <p>vii) Table or desk tops</p> <p>viii) Upholstered furniture.</p>	1 microvac, 1 PAHs wipe, 1 metal wipe at each location sampled	Scaled to floor area as follows: <1000sf = 3 locations, >1000 <5000sf = 5 locations, >5000sf = 7 locations, >10000sf = 10 locations
“Infrequently Accessed” areas are defined as areas in which dust may accumulate but cause infrequent exposure of residents or the general public.	<p>i) Trough of a window sill;</p> <p>ii) Top of vent ducts, or hot water pipes;</p> <p>iii) On top, beneath or behind large appliances or objects of furniture such as beds, chests, refrigerators, upright freezers, built in file cabinets or bookcases.</p>	1 microvac, 1 PAHs wipe, 1 metal wipe at each location sampled	Scaled to floor area as follows: <1000sf = 3 locations, >1000 <5000sf = 5 locations, >5000sf = 7 locations, >10000sf = 10 locations

<p>“Inaccessible” areas are defined as areas in which dust may accumulate but which rarely cause exposure to residents or the general public.</p>	<p>i) Behind rarely moved objects such as wall units and heavy appliances such as dishwashers and stoves;</p> <p>ii) Behind or underneath rarely moved objects of furniture such as large chests;</p> <p>iii) In corners of closets or similar small areas rarely accessed or cleaned;</p> <p>iv) Above suspended ceilings.</p>	<p>1 composite HEPA of all locations sampled</p>	<p>Scaled to floor area as follows: <1000sf = 3 locations, >1000 <5000sf =5 locations, >5000sf =7 locations, >10000sf only one composite regardless of area</p>
<p>HVAC</p>	<p>Inlets that are facing Ground Zero are preferred. Samples will not be taken in an outdoor air inlet where an extraordinary effort is required, such as when the air inlet is located in a location that would require scaffolding or hoists for access;</p>	<p>1 composite HEPA of all inlets sampled</p>	<p>Assume 1 per bldg</p>
	<p>Filters</p>	<p>1 composite Bulk Sample</p>	<p>Assume 1 per bldg</p>
	<p>Sample of ducting, air mixing plenums or other spaces serving sampled floors. The location should be accessible and should be in a central location between sampled units. If possible, samplers should seek out locations near outlets that are also near bends and turns within the plenum.</p>	<p>1 HEPA sample for each floor</p>	<p>Assume 10 per bldg</p>
	<p>All HVAC outlets in units discharging to locations where wipe or microvac (for measurement of COPC) samples are taken.</p>	<p>1 HEPA sample for each floor</p>	<p>Assume 10 per bldg</p>
<p>Indoor Air Sampling</p>	<p>Indoor air sample sets for asbestos and MMVF in common areas sampled.</p> <p>Indoor air sample sets for asbestos and MMVF in accessible areas of unit sampled.</p>	<p>Set = minimum of three each for appropriate COPC in each common space or unit sampled</p>	<p>Scaled as follows: small spaces (less than 160sf), 3 sample sets will be collected; spaces 160sf to 25,000sf, 5 sample set will be collected; spaces greater than 25,000sf, 1 sample set will be collected for each 5,000sf.</p>

II. Analytical Parameters for Each Sample					
Sample	Analytical Parameters	Sampling Method	Description	Analytical Method	Benchmarks
Metal Wipe	Lead	HUD Appendix 13.1	Wipe Samples.	SW-846 6010C	Accessible loading 40 µg/ft ² Infrequently Accessed loading 400µg/ft ²
PAHs Wipe	PAHs	ASTM D 6661-01	Wipe Samples.	SW-846 8270D	Accessible loading 150 µg/m ² Infrequently Accessed loading 1.5 mg/m ²
Microvac	Asbestos	ASTM D 5755-95	Microvac sample	TEM SAED EDS	Accessible loading 5000 structures/cm ² , Infrequently Accessed 50000 structures/cm ²
	MMVF	ASTM D 5755-95	Microvac sample	TEM SAED EDS Confirm with SEM EDS if benchmark exceeded	Accessible loading 5000 fibers/cm ² , Infrequently Accessed 50000 fibers/cm ²
HEPA and Bulk Samples	Asbestos/MMVF	Bulk	HEPA and HVAC unit filters (collection of bulk dust sample from inaccessible areas, inlets, air filters, mixing plenums and outlets).	PLM NYS 198.1 followed by TEM NYS 198.4	None
	Lead	Bulk	HEPA and HVAC unit filters (collection of bulk dust sample from inaccessible areas, inlets, air filters, mixing plenums and outlets).	SW-846 6010C	None
	PAHs	Bulk	HEPA and HVAC unit filters (collection of bulk dust sample from inaccessible areas, inlets, air filters, mixing plenums and outlets).	SW-846 8270D	None
Indoor Samples	Asbestos/MMVF	NIOSH 7402 3600 l sample		TEM SAED EDS confirm with SEM-EDS if MMVF benchmark is exceeded	0.0009 S/cc 0.01 f/cc